

AMENDMENTS TO THE DRAWINGS

Replacement formal drawings (FIGURES 1-4B) are submitted herewith. No new matter has been added.

REMARKS

This amendment is responsive to the Office Action mailed November 18, 2010. In the Office Action, Claims 1-22, 24, and 26-41 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kalmus et al. (U.S. 4,674,044) in view of Anaya et al. (U.S. 7,454,372). For at least the following reasons, applicant submits that the pending claims are patentable over the cited references. Reconsideration of the application and withdrawal of the claim rejections is respectfully requested.

With this paper, Claims 1-5, 12, 27-33, and 40 have been amended. Claims 1-22, 24, and 26-41 remain pending in the application.

Patentability of Claims 1-6, 17, 19, and 24

The Office Action rejected Claim 1 and its dependent Claims 2-6, 17, 19, and 24 as allegedly being obvious over Kalmus in view of Anaya. However, Kalmus and Anaya, considered separately and in combination, fail to teach or suggest all of the elements of Claim 1.

On page 2, the Office Action cited Kalmus as allegedly teaching the elements of *"notifying a set of first computer processes of a proposed price for buying or selling the security, wherein the set of first computer processes represents a subset of the plurality of market participants, and wherein a trade for the security at the proposed price is not executable at the market."* In this regard, the Office Action referred to Col. 4, lines 1-67, Claim 1, and Claim 3 of Kalmus.¹ Nevertheless, this reliance on Kalmus is misplaced.

At Col. 4, lines 1-67, Kalmus merely describes computing apparatus connected via a network for securities trading. For example, at lines 7-50, Kalmus explains:

The processor 10 communicates over a link 11 with a trader terminal position 15 containing an output signalling device such as a cathode ray tube display, and data input apparatus such as a keyboard. Trader terminal 15 has two portions. A terminal position section TI

¹ The Office Action referred to "claim 3 lines 5-40." However, Claim 3 spans lines 8-19 of Col. 11 of Kalmus. Applicant has interpreted this citation to refer to Col. 11, lines 8-19.

communicates with the processor 10; and a section T2 is connected by link 16 to the National Association of Securities Dealers Automated Quotation (NASDAQ) system 18. The trader terminal 15 communicates its current bid and asked prices for stocks in which it makes a market to NASDAQ via link 16--as do other market makers bridged (17) to link 16. The terminal portions T1 and T2 may be one integrated smart terminal (computer) assembly, or two separate devices available to the trader at the station 15.

The processor 10 receives and stores the best (highest) bid (processing variable BSTB(STK)) for each stock (STK) in which it makes a market, and the best (lowest) asked price BSTA(STK) from the NASDAQ system 18 via a communications path 22. The best bid and best asked prices as reported by NASDAQ form the so-called "insider market" for over the counter securities. Processor 10 communicates to the NASDAQ system 18 via a link 23 each reportable, executed trade for various informational and regulatory purposes. Link 23 also reports trades to the Consolidated Tape Authority (CTA) and the NASD National Market System (NMS) for subsequent reporting to the financial industry and general public. Communications path 23 also connects processor 10 with the NASD small order execution system (SOES) and computer assisted execution system (CAES) which can participate in relatively small order execution.

Input/output network 25 provides data communication with the various branch offices 27 of the brokerage house. Line 25 permits communication with either the branch order entry clerk or directly to the account executives at each branch. While only one branch 27_i is shown in FIG. 1, it is to be understood that a multiplicity of branches 27_i are in data communication with processor 10. Computer 10 also communicates with third party financial houses 29_i via a two-way data link 26 (e.g., including INSTINET).

Beginning at Col. 4, line 51, Kalmus describes Figure 1 which is a block diagram of a system for effecting securities trading. Kalmus explains:

To characterize the FIG. 1 arrangement in overview, the operative (best bid, best asked inside market) prices for each stock in which the system proprietor makes a market are communicated over link 22 from NASDAQ and repose in memory at processor 10. The market maker has a position in each security in which he makes a market and the particulars of that position also repose in memory within the composite processor 10. Orders for trades in the relevant securities are funneled to the processor 10 in real time as they occur. Orders can be received in several ways. For example and most typically, orders may be generated by the brokerage firm's account executives at the branches 27 and communicated to the CPU 10 via the communication path 25. Orders are also supplied to the

processor 10 from third party financial sources 29 (e.g., other brokerage firms, directly from computer equipped customers, banks or the like) over communication network 26. Each of the orders includes appropriate data fields outlined above and more fully discussed below, such as an identification of the office and customer or other originator of order, stock identification, price particulars and so forth.

Notwithstanding the above-quoted disclosure, nowhere does Kalmus teach the features of Claim 1 of the present application. Nothing in Kalmus suggests "notifying a set of first computer processes of a proposed price for buying or selling the security, wherein the set of first computer processes represents a subset of the plurality of market participants, and wherein a trade for the security at the proposed price is not executable at the market." According to Kalmus, orders are received with information "such as an identification of the office and customer or other originator of order, stock identification, price particulars and so forth" (Col. 5, lines 2-5). However, these orders are sent for execution at the market. (Col. 5, lines 22-23.) Sending of such orders to a market does not constitute "notifying a set of first computer processes of a proposed price for buying or selling the security . . . wherein a trade for the security at the proposed price is not executable at the market."

Kalmus also does not teach notifying "a set of first computer processes . . . wherein the set of first computer processes represents a *subset* of the plurality of market participants." (Emphasis added.) To the extent that orders received at the market taught by Kalmus are published, it should be noted that the prices are published to all of the participants at the market. (Col. 5, lines 23-30.) Furthermore, this publication of price does not constitute "notifying a set of first computer processes of a *proposed price* for buying or selling the security." It should be noted that Claim 1 uses different terms to refer to a "published price" and a "proposed price."

A "*published price*" is not the same as a "*proposed price*." Claim 1 explicitly recites "wherein the market participants can execute a trade for the security at the published price" while "a trade for the security at the proposed price is not executable at the market." (Emphasis added.)

The Office Action also cited Claim 1 and Claim 3 of Kalmus, which recite as follows:

1. A data processing system for making a trading market in at least one security in which the system proprietor is acting, as a principal; said system including means for receiving trade orders for said at least one security from system customers, said trade orders including fields identifying the stock to traded and characterization of the trade as customer purchase or sale, and the number of shares for the transaction; means for retrieving and for storing operative bid and asked prices for said at least one security; means for entering and for storing order qualification parameters, said parameters and said stored prices determining which received orders are qualified for execution; means for storing data characterizing position, cost and profit for said at least one security; qualifying means responsive to said received trade offers and said stored prices and order qualification parameters for qualifying a trade order for execution when the received trade order fields do not violate the stored prices and qualification parameters; means for executing each trade order qualified by said qualification means; and post-execution updating means for incrementing said stored position in said at least one security by the amount of a trade order upon execution of a customer sale and decrementing said stored position by the amount of a trade order upon execution of a customer purchase and means for updating at least one of said stored cost and profit upon execution of a trade.

3. A system as in claim 1, wherein said stored order qualifying parameters include the amount of said at least one security available for customer purchase and the amount of said at least one security available for customer sale, said data processing system further including means for decrementing said amount of said security available for customer purchase by the amount of said security in a trade order upon execution of a customer purchase, and means for decrementing said amount of said security available for customer sales by the amount of said security in a trade order upon execution of a customer sale.

As can be observed above, Kalmus merely suggests a system that, for example, receives trade orders, qualifies trade orders for execution, and executes trade orders that are qualified. Upon execution of a customer purchase, the system may decrement an amount of the security available for customer purchase by the amount of the security in a trade order, and upon execution of a customer sale, the system may decrement an amount of the security available for customer sales by the amount of the security in a trade order. (Col. 7, lines 28-44.) Kalmus says

nothing about "notifying a set of first computer processes of a proposed price for buying or selling the security," as claimed in Claim 1.

Kalmus also fails to teach or suggest *"receiving an improved price for the security from at least one of the first computer processes, wherein the improved price is higher than the proposed price for buying the security or lower than the proposed price for selling the security, and in response to receiving an improved price from at least one of the first computer processes, providing the improved price as a published price,"* as claimed in Claim 1. In this regard, the Office Action (page 3) referred to the same portions of Kalmus (Col. 4, lines 1-67, Claim 1, and Claim 3) as discussed above, but as noted above, these portions of Kalmus do not support the claim rejection.

The Office Action also cited Col. 5, lines 1-67 and Col. 6, lines 1-47. In Col. 5, Kalmus further explains the "qualification" of orders and execution of "qualified" orders. At lines 6-30, in particular, Kalmus teaches:

The processor 10 first determines whether or not each received order can be executed, i.e., "qualifies" the order. There are various reasons why an order will not be executed by the market maker. Thus, for example, the customer may seek to sell stock above the current bid price or to purchase the security below the current asked price. A customer may seek to trade a number of shares which exceeds the amount which the particular market maker is willing to accommodate, either in gross or for any one order. Orders not executable, i.e., orders not qualified, are either stored in memory in the processor 10 for later execution if they become qualified (such as by a favorable change in the market price for a security which can then accommodate the customer's price limits) or are forwarded to other market makers for potential execution over communication links 23 or 26.

Assuming that an order is executable, the processor 10 "executes" the order, appropriately adjusting all balances. Information characterizing the executed order is sent to computer 13 for customers of that brokerage house or reported to the appropriate other institution via links 23 or 26. The specifics of appropriate transactions are also reported to the NASD for informational purposes and to the Consolidated Tape Authority and so forth and may become stock ticker entries.

Kalmus also discusses the processing of price changes, at Col. 5, lines 31-46:

The NASDAQ system 18 is apprised of the current quotations from all traders making a market in the subject securities via communication path 16. The insider market (best bid and asked prices) are communicated to the market maker's processor 10 via link 22. When the insider market price changes (a variation in the best bid or best asked price), the processor 10 in accordance with the instant invention signals the trader at station 15 who is then given the opportunity to readjust his quantity or other market-characterizing criteria. Following each price change, all non-executable orders stored in the processor 10 memory are reviewed to determine whether they have become executable and, if so, they are in fact executed. Processing then continues as above described to accommodate the real time order inflow.

Beginning at Col. 5, line 46, through Col. 6, as cited in the Office Action, Kalmus turns to describe Figure 2, which is a flow chart of data processing for qualifying for execution an order communicated from a branch order clerk or account executive.

Applicant has carefully considered the entire disclosure of Kalmus and respectfully asserts that Kalmus nowhere teaches "receiving an improved price for the security from at least one of the first computer processes, wherein the improved price is higher than the proposed price for buying the security or lower than the proposed price for selling the security, and in response to receiving an improved price from at least one of the first computer processes, providing the improved price as a published price." Kalmus merely teaches processes in which a user can execute a trade based on a published buy or sell price. (See, e.g., Col. 1, line 57, to Col. 2, line 8.) The Office Action did not indicate what aspects of Kalmus constitutes a "proposed price" (that is notified to "a subset of the plurality of market participants" and which "is not executable at the market"), nor does it identify any step in Kalmus of receiving an "improved price" that is "higher than the proposed price for buying the security or lower than the proposed price for selling the security."

The Office Action cited Anaya for allegedly disclosing that market participants can execute a trade for a security at a published price. In particular, the Office Action cites Anaya at Col. 21, lines 52-61, and Col. 23, lines 24-31. Anaya, however, does not rectify or overcome the deficiencies of Kalmus, discussed above.

Neither Kalmus nor Anaya, alone or combined, teaches or suggests all of the elements of Claim 1. Therefore, applicant maintains that the Office Action has not established a *prima facie* basis for rejecting Claim 1. The 35 U.S.C. § 103(a) rejection of Claim 1 should be withdrawn and the claim should be allowed.

Claims 2-6, 17, 19, and 24 depend either directly or indirectly from Claim 1 and therefore are patentable for at least the same reasons presented above with respect to Claim 1. Claims 2-6, 17, 19, and 24 are also patentable for the additional subject matter they recite which is not taught or suggested by the cited art.

Furthermore, applicant notes that *all of the dependent claims* in the present application were rejected based on the same cited portions of Kalmus, namely, Col. 4, lines 1-67; Claim 1; Claim 3; Col. 5, lines 1-67; and Col. 6, lines 1-47.² In *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 U.S.P.Q.2d 1385, 1395-97 (2007), the Supreme Court indicated that the key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reasons why the claimed invention would have been obvious. See also M.P.E.P. § 2143. Applicant respectfully submits it is improper for the Office Action to rely on a blanket citation of the foregoing portions of Kalmus to reject all of the dependent claims, without providing a clear articulation of the reasons why the invention as claimed in each of the dependent claims would have been obvious.

For at least the foregoing reasons, applicant submits that the rejection of dependent Claims 2-6, 17, 19, and 24 is improper and should be withdrawn.

Patentability of Claims 7-11 and 26

For reasons similar to those discussed above with regard to Claim 1, Kalmus and Anaya fail to teach or suggest all of the elements recited in Claim 7.

² At pages 3-13, the Office Action referred to "claim 3 lines 5-40." However, as noted above, Claim 3 of Kalmus spans lines 8-19 of Col. 11. As with Claim 1, applicant has interpreted this citation to refer to Col. 11, lines 8-19.

For example, Kalmus fails to teach or suggest a method that includes "receiving a proposed price for the security from a second computer process, wherein the second computer process is providing the market, and wherein a trade for the security at the proposed price is not executable at the market." As discussed above, a "proposed price" is not the same as a "published price." There is no disclosure in Kalmus of "receiving a *proposed* price [that] . . . is not executable at the market."

Kalmus also fails to teach or suggest the elements of "determining whether to improve upon the proposed price for the security by offering an improved price that is higher than the proposed price for buying or lower than the proposed price for selling, and if the determination is affirmative, offering the improved price to the second computer process, which improved price can be provided by the second computer process as a published price to a plurality of market participants at the market, the published price being executable by the market participants at the market."

Anaya, for its part, fails to supply the teachings that are missing in Kalmus. As with Claim 1, the Office Action cited Col. 21, lines 52-61, and Col. 23, lines 24-13, of Anaya, but these passages merely refer to trading securities based on published buy and sell prices. Such trading does not constitute "determining whether to improve upon [a] proposed price for [a] security by offering an improved price that is higher than the proposed price for buying or lower than the proposed price for selling," as recited in Claim 7.

For at least the foregoing reasons, applicant submits that Claim 7 defines over the combination of Kalmus and Anaya. Since the cited references do not support a *prima facie* rejection of the claim, Claim 7 should be allowed.

Claims 8-11 and 26 dependent from Claim 7 and thus are patentable for at least the same reasons presented above. Applicant further submits that Claims 8-11 and 26 are patentable for the additional subject matter they recite, which is not taught or suggested by Kalmus and Anaya. Claims 8-11 and 26 should be allowed.

Patentability of Claims 12-16, 18, and 20-22

The Office Action failed to establish a *prima facie* case of obviousness of Claim 12, despite the citations to Kalmus and Anaya addressed above. The Office Action did not set forth a factual basis that supports an obviousness rejection of Claim 12. Therefore, the rejection of Claim 12 should be withdrawn.

More specifically, Kalmus does not teach or suggest a method of setting a price for a security that includes "engaging in a price discovery procedure with a set of first computer processes before responding to a request for a current buy or sell price of the security, wherein the price discovery procedure produces a discovered price for the security" and "providing the discovered price as the current buy or sell price of the security in response to the request, the discovered price being higher than the book buy price or lower than the book sell price," as claimed in Claim 12.

Conceding deficiencies in Kalmus (see page 6), the Office Action relied on the disclosure of Anaya, but Anaya is also deficient with respect to the elements of Claim 12. The disclosure of Anaya at Col. 21, lines 52-61, and at Col. 23, lines 24-31 does not teach or suggest the subject matter that is claimed in Claim 12.

Thus, even if Kalmus and Anaya were combined, the combination does not disclose or suggest all of the elements of Claim 12. Consequently, Claim 12 is not obvious and should be allowed.

Claims 13-16, 18, and 20-22 depend from Claim 12 and thus are patentable for at least the same reasons presented above with respect to Claim 12. Applicant further submits that Claims 13-16, 18, and 20-22 are patentable for the additional subject matter they recite, which is not taught or suggested by the cited art. Accordingly, Claims 13-16, 18, and 20-22 should be allowed.

Patentability of Claims 27-33

Claim 27 is directed to a "computing system for providing a published price for a security to a plurality of market participants at a market at which trades are made with respect to the security." The computing system includes "a notification component executing on at least one computer processor, wherein the notification component is configured to notify a set of market participants of a proposed price for trading the security, wherein the set of market participants is a subset of the plurality of market participants, and wherein a trade for the security at the proposed price is not executable at the market."

Furthermore, as claimed, the computing system includes "a pricing component" that is configured "to receive an improved price for the security from at least one of the market participants in the set of market participants, wherein the improved price is higher than the proposed price for buying or lower than the proposed price for selling." In response to receiving an improved price from at least one of the market participants in the set, the pricing component is configured to "provide the improved price as the published price, . . . wherein the market participants can execute a trade for the security at the published price." The notification component is configured "to notify the set of market participants of the proposed price prior to the pricing component providing the published price."

For at least reasons similar to those discussed above, Kalmus and Anaya do not disclose the computing system claimed in Claim 27. In particular, neither Kalmus nor Anaya teaches "a notification component . . . configured to notify a set of market participants of a proposed price for trading the security," and "a pricing component . . . configured to receive an improved price for the security from at least one of the market participants in the set of market participants, wherein the improved price is higher than the proposed price for buying or lower than the proposed price for selling, and in response to receiving an improved price from at least one of the market participants in the set, provide the improved price as the published price." Claim 27 should thus be allowed.

Applicant also submits that Kalmus and Anaya fail to teach or suggest the elements disclosed in dependent Claims 28-33, which should be allowed for at least reasons similar to those discussed above.

Patentability of Claims 34-37

Claim 34 is directed to a computer-accessible medium containing computer program instructions. In response to execution by a computer, the instructions cause the computer to participate in pricing of a security by "receiving a proposed price for the security from a computer processes, wherein the computer process is providing a market at which trades are made with respect to the security, and wherein a trade for the security at the proposed price is not executable at the market" and by "determining whether to improve upon the proposed price for the security by offering an improved price that is higher than the proposed price for buying the security or lower than the proposed price for selling the security, and if the determination is affirmative, then offering the improved price to the computer processes." The improved price "can be provided by the computer processes as a published price to a plurality of market participants at the market, and a trade at the published price being executable by the market participants at the market."

For at least reasons similar to those discussed above with respect to Claim 7, applicant submits that the disclosures in Kalmus and Anaya do not teach or suggest elements of the computer-accessible medium claimed in Claim 34. Claim 34 should thus be allowed.

Additionally, Kalmus and Anaya fail to teach the elements disclosed in dependent Claims 35-37, and thus, Claims 35-37 should be allowed.

Patentability of Claims 38 and 39

Claims 38 and 39 are system claims written in means plus function form, and thus encompass the computer structures and equivalents thereof described in the specification that perform the recited functions. Applicant has again reviewed the corresponding computer structures and algorithms disclosed in the specification for accomplishing the recited functions in

view of the cited art, and submits that Claims 38 and 39 are in allowable condition for at least the same reasons that Claims 1 and 12 are patentable over the cited art.

Patentability of Claims 40 and 41

Claim 40 is directed to a non-transitory computer-accessible storage medium containing computer program instructions for providing a published price for a security. In response to execution, the instructions cause a computer to: "notify a set of first computer processes of a proposed price for buying or selling the security, wherein a trade for the security at the proposed price is not executable at the market," "receive an improved price for the security from at least one of the first computer processes, wherein the improved price is higher than the proposed price for buying or lower than the proposed price for selling," and "in response to receiving an improved price from at least one of the first computer processes, provide the improved price as the published price." The market participants "can execute a trade for the security at the published price."

Claim 41 depends from Claim 40 and recites "instructions [that] further cause the computer to compare a current book price to a most recent trade price and decide to notify the first computer processes of the proposed price when the current book price is different than the most recent trade price."

For at least reasons similar to those discussed above with respect to Claims 1 and 6, applicant submits Claims 40 and 41 are patentable over Kalmus and Anaya. Withdrawal of the rejections of Claims 40 and 41 is respectfully requested.

Information Disclosure Statements

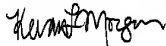
As a final matter, applicant respectfully requests consideration of the Information Disclosure Statements (IDSs) that were submitted on September 9, 2008; August 27, 2009; May 24, 2010; and August 5, 2010. Initialed copies of these IDSs are requested with the next action in this application.

CONCLUSION

For at least the reasons discussed above, the disclosures of Kalmus and Anaya do not support a *prima facie* rejection of Claims 1-22, 24, and 26-39 under Section 103. Accordingly, allowance of the present application is proper. Applicant respectfully requests the issuance of a Notice of Allowance.

Respectfully submitted,

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